FIG. 1

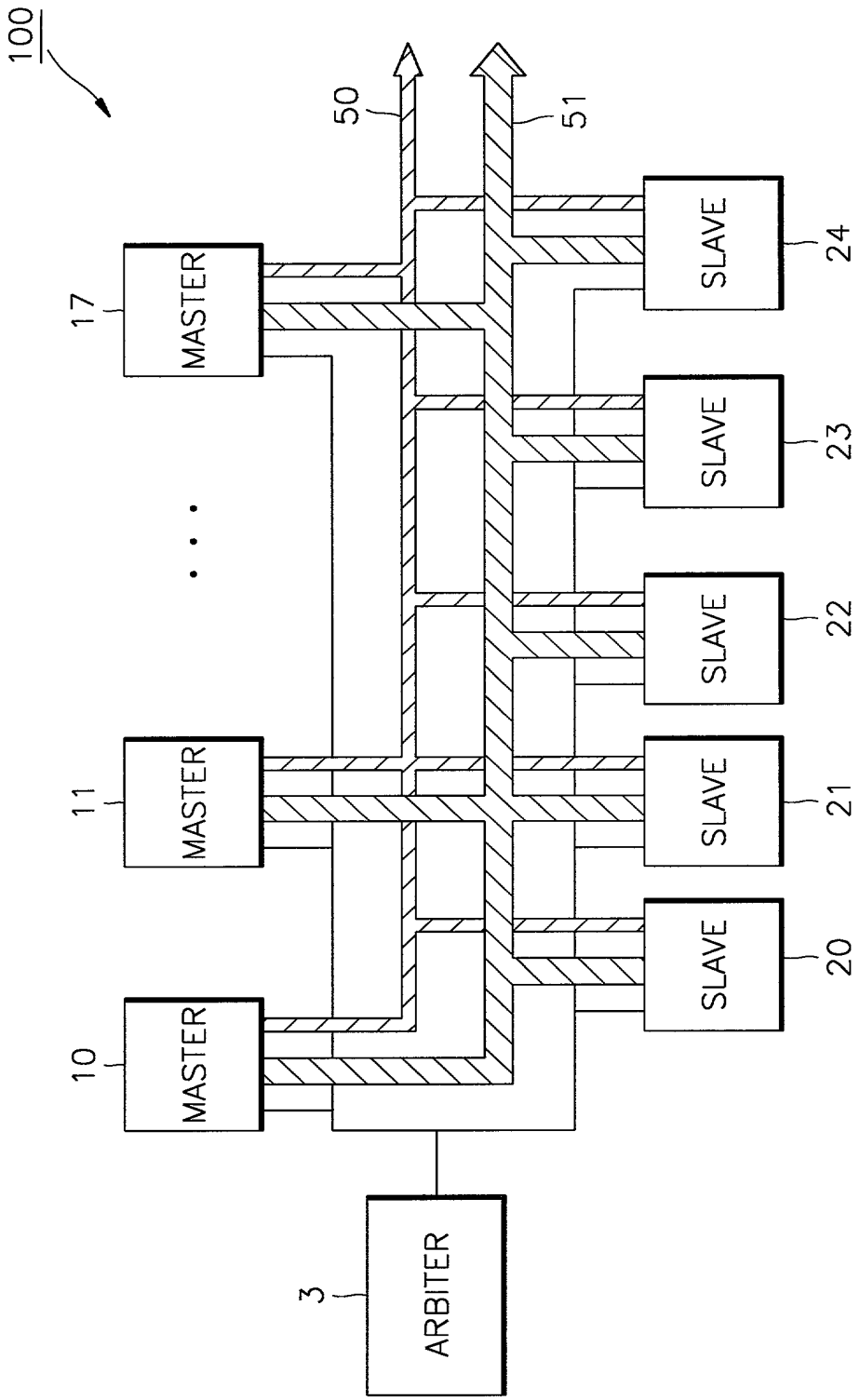

100
50
51
MASTER
17
MASTER
11
MASTER
10
SLAVE
24
SLAVE
23
SLAVE
22
SLAVE
21
SLAVE
20
ARBITER
3

FIG. 2

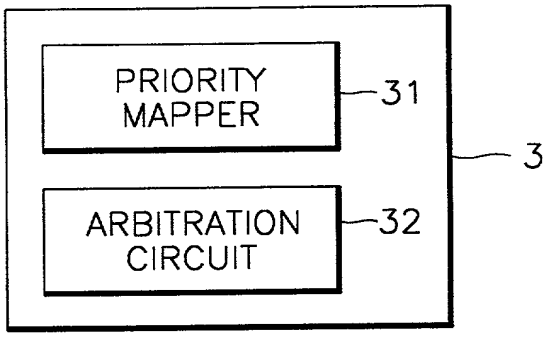

PRIORITY MAPPER
31
ARBITRATION CIRCUIT
32
3

FIG. 4

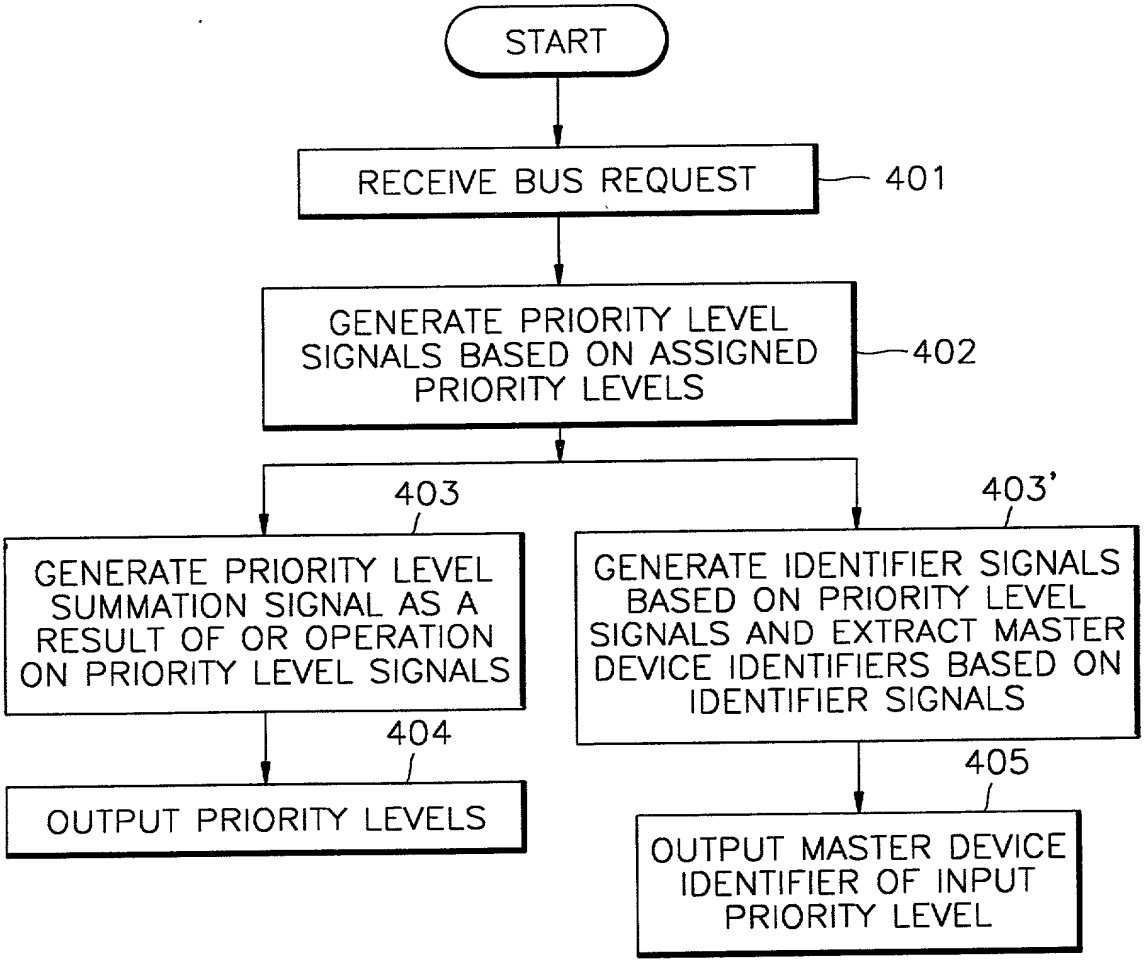
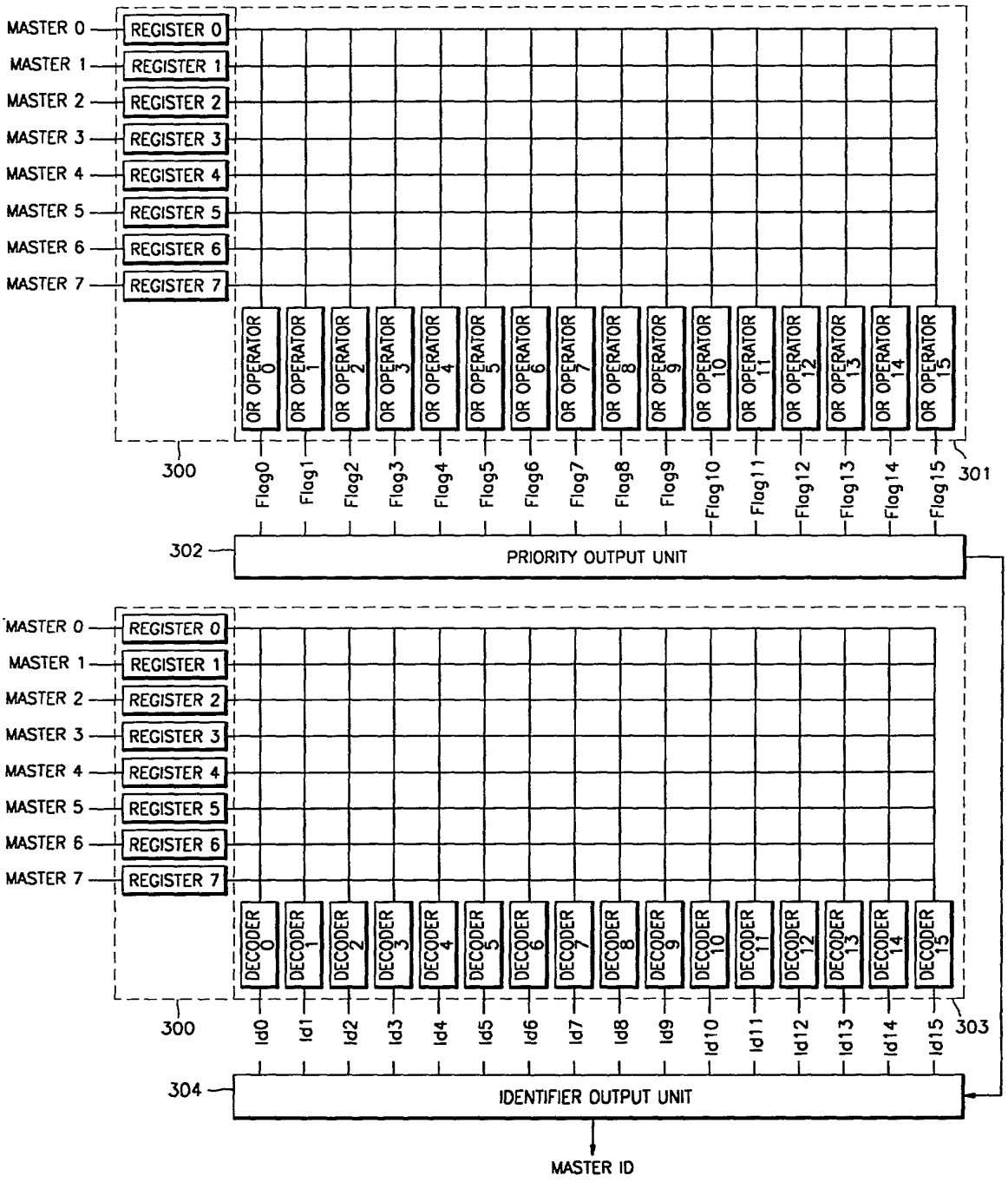

START
RECEIVE BUS REQUEST
401
GENERATE PRIORITY LEVEL SIGNALS BASED ON ASSIGNED PRIORITY LEVELS
402
403
403'
GENERATE PRIORITY LEVEL SUMMATION SIGNAL AS A RESULT OF OR OPERATION ON PRIORITY LEVEL SIGNALS
GENERATE IDENTIFIER SIGNALS BASED ON PRIORITY LEVEL SIGNALS AND EXTRACT MASTER DEVICE IDENTIFIERS BASED ON IDENTIFIER SIGNALS
404
405
OUTPUT PRIORITY LEVELS
OUTPUT MASTER DEVICE IDENTIFIER OF INPUT PRIORITY LEVEL

FIG. 3


MASTER 0
MASTER 1
MASTER 2
MASTER 3
MASTER 4
MASTER 5
MASTER 6
MASTER 7
REGISTER 0
REGISTER 1
REGISTER 2
REGISTER 3
REGISTER 4
REGISTER 5
REGISTER 6
REGISTER 7
OR OPERATOR 0
OR OPERATOR 1
OR OPERATOR 2
OR OPERATOR 3
OR OPERATOR 4
OR OPERATOR 5
OR OPERATOR 6
OR OPERATOR 7
OR OPERATOR 8
OR OPERATOR 9
OR OPERATOR 10
OR OPERATOR 11
OR OPERATOR 12
OR OPERATOR 13
OR OPERATOR 14
OR OPERATOR 15
300
Flag0
Flag1
Flag2
Flag3
Flag4
Flag5
Flag6
Flag7
Flag8
Flag9
Flag10
Flag11
Flag12
Flag13
Flag14
Flag15
301
302
PRIORITY OUTPUT UNIT
DECODER 0
DECODER 1
DECODER 2
DECODER 3
DECODER 4
DECODER 5
DECODER 6
DECODER 7
DECODER 8
DECODER 9
DECODER 10
DECODER 11
DECODER 12
DECODER 13
DECODER 14
DECODER 15
Id0
Id1
Id2
Id3
Id4
Id5
Id6
Id7
Id8
Id9
Id10
Id11
Id12
Id13
Id14
Id15
303
304
IDENTIFIER OUTPUT UNIT
MASTER ID